generally good unless it has been degraded by human activities (see Table 3.3).

Cape Cod

Cape Cod receives special attention in this report because it not only has some interesting hydrogeological characteristics but also has some innovative and effective local approaches to ground water protection. The Cape is composed predominantly of highly permeable stratified drift sediments with a shallow water table and ground water of naturally high quality. Because ground water is the only source of drinking water for residents, Cape Cod was declared a sole-source aquifer by EPA in 1982. Unconfined conditions, highly permeable, sandy soils, and shallow depths to ground water make this aquifer system highly susceptible to contamination from various activities related to the rapid growth and development of the area. Furthermore, all of the Cape is surrounded by sea water, making it vulnerable to salt water intrusion.

Ground Water Quality Issues

Massachusetts

In general, Massachusetts has many of the same problems and concerns related to ground water quality that affect other northeastern states. The greatest threats to water quality in the stratified drift aquifer of Cape Cod are related to incompatible land use activities, which include sewage disposal through private septic systems and municipal waste water treatment plants, landfills, dumps, road salt, application of agricultural chemicals, surface impoundments, leaking underground storage tanks, accidental chemical spills, industrial discharges, and toxic household chemicals. In some areas, public and private wells have been adversely affected by sea water intrusion.

Cape Cod

The Cape Cod area has experienced significant ground water contamination problems from leaking underground motor-fuel tanks, sewage discharges, and salinity increases from road salt and sea water intrusion. Underlying much of the concern on Cape Cod is its rapid population growth and development; the population increased by more than 50 percent during the 1970s, and ground water management efforts are hard put to keep pace with residential and commercial development pressures.